

SYMPOSIUM ON CHARACTERIZATION AND CHEMISTRY OF OIL SHALES
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THE COMBUSTION OF OIL SHALES BY THE
CERCHAR FBC PROCESS

By

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ABSTRACT

The CERCHAR experience is wide and relatively ancient in the area of coal refuses FBC combustion. Since 1976, CERCHAR has undertaken laboratory tests on different oil shales, more particularly Lorraine (North-east of France) and Brazilian oil shales.

These tests have been carried out in a 500 mm diameter fluidized-bed fitted with the "CERCHAR" pyramid distributor, principal component of the CERCHAR FBC Process. This paper presents the CERCHAR FBC Process, the test rig, the oil shales tested and the results obtained. The results show that these oil shales can be burned in a FBC boiler with a good combustion efficiency and allow a further development of the process, but for instance, the required economical conditions are not yet reached in France. However, a demonstration unit, able to burn oil shales, is now under construction in France. This unit will burn high ash (80%) coal shales in order to produce 15 t/h of 300°C/30 bar steam. Start-up is scheduled for October 1984.